Access Control Technology

ACTentry V-IP
Operating & Installation Instructions

18-00082

Rev 3.1 Issue 1

This manual refers to ACTentry V-IP, a TCP/IP based door videophone system.

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Ordering Information

ACT Product Code	Product description
ACTentry V-IP SK	Surface Mount Kit*
ACTentry V-IP FK	Flush Mount Kit*
ACTentry V-IP SP	VoIP Door Entry Panel (surface)
ACTentry V-IP FP	VoIP Door Entry Panel (flush)
ACTentry V-IP SKX	Surface Mount Kit**
ACTentry V-IP FKX	Flush Mount Kit**
ACTentry V-IP SPX	VoIP Door Entry Panel (surface) with cut out for panel mount proximity reader
ACTentry V-IP FPX	VoIP Door Entry Panel (flush) with cut out for panel mount proximity reader
ACTentry V-IP CTR	V-IP control unit
ACTentry V-IP PCH	Plug in PC Handset. Internal use only.
ACTentry V-IP PSU	1Amp Power Supply Unit.

* Vandal resistant VoIP Door Entry Panel, PC handset, Control Unit & Power Supply

** *Extended Version:* Vandal resistant VoIP Door Entry Panel with cut-out for panel-mount proximity reader, PC handset, Control Unit & Power Supply.

Product Specification

Supply Voltage	10-15Volts DC
Current Consumption	600mA
Operating Temperature	-10 to +50 degrees C
Door Open Time	1 – 255 seconds (4 minutes and 15 seconds maximum)
Relay Contact Rating	Lock Relay 5A / 50Vac, Alarm Relay 1A / 50Vac, Buzzer Relay 1A/ 50Vac
Entrance Panel Size	Flush Mount: 243.5 X 125 mm
	Surface Mount: 266.5 X 124 mm
Distance from V-IP controller to Door Entry Panel	50m
Water Resistance	Medium IP54

1.0 INTRODUCTION

1.1 System Overview

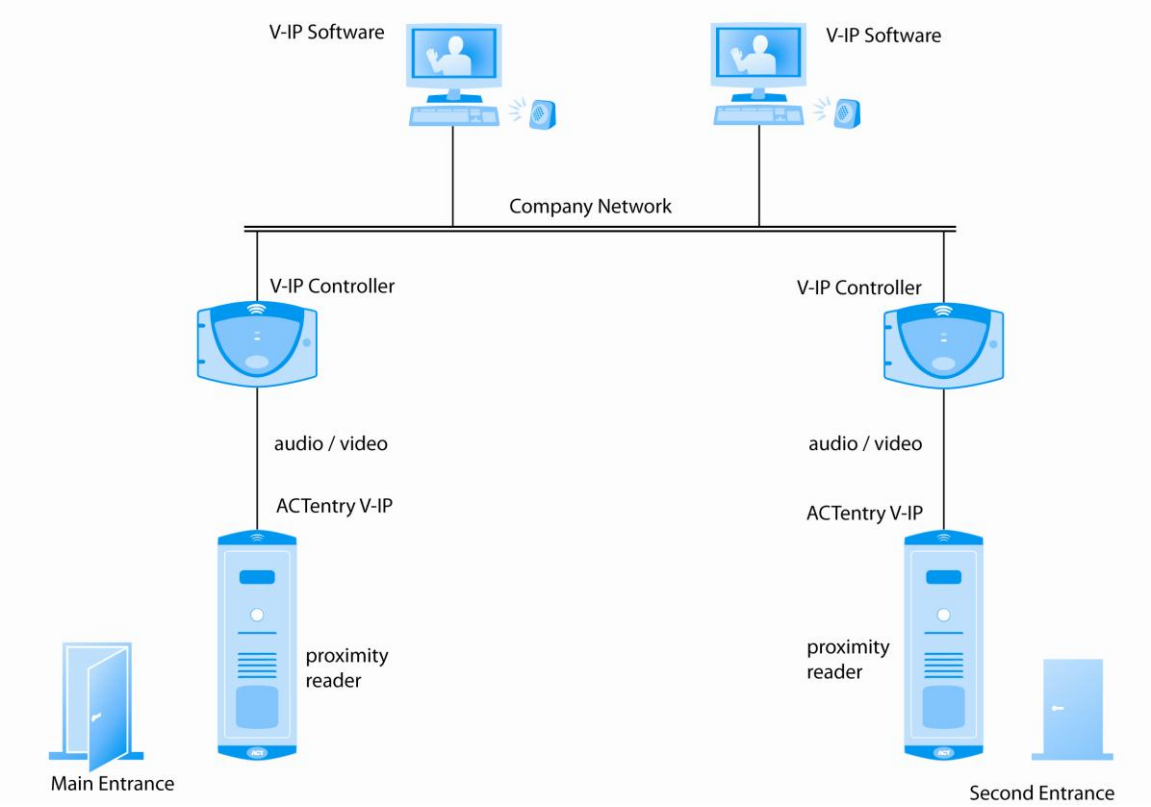
The ACTentry V-IP (*V*ideo/audio over *IP*) system is a TCP/IP based video-doorphone system. Access to the building can be administered from any PC on the TCP/IP network.

The system consists of:

1. ACTentry V-IP Door Panel:
The door panel has a Call button, colour video camera and audio unit.
Note: The extended versions of the entry panel has a cut out for an ACT 1030 panel mount proximity reader.

2. ACTentry V-IP Controller:
The controller has an Ethernet interface and converts video and audio signals from Door Panel to TCP/IP data. It also has door and alarm inputs and outputs. The relay for opening the door is contained in the V-IP unit for additional security. The V-IP unit should always be on the secure side of the door.

3. ACTentry V-IP Software:
The software requires a PC with a soundcard and ACT handset (provided) and PC speakers (not provided).



2.0 INSTALLATION

2.1 System Requirements

The minimum PC requirements are:

1. Colour SVGA monitor with at least 800x600 screen resolution

2. Mouse and keyboard

3. CDROM drive (required during installation only)

4. Ethernet or FastEthernet LAN connection with TCP/IP protocol (100MBps preferable)

5. Operating systems: Windows 7, Windows Vista (32bit and 64bit)

6. 32-bit or 64bit processor, 1GBytes RAM, 16GB hard disk space.

7. Local DHCP Server (see section 5 for fixed IP addressing)

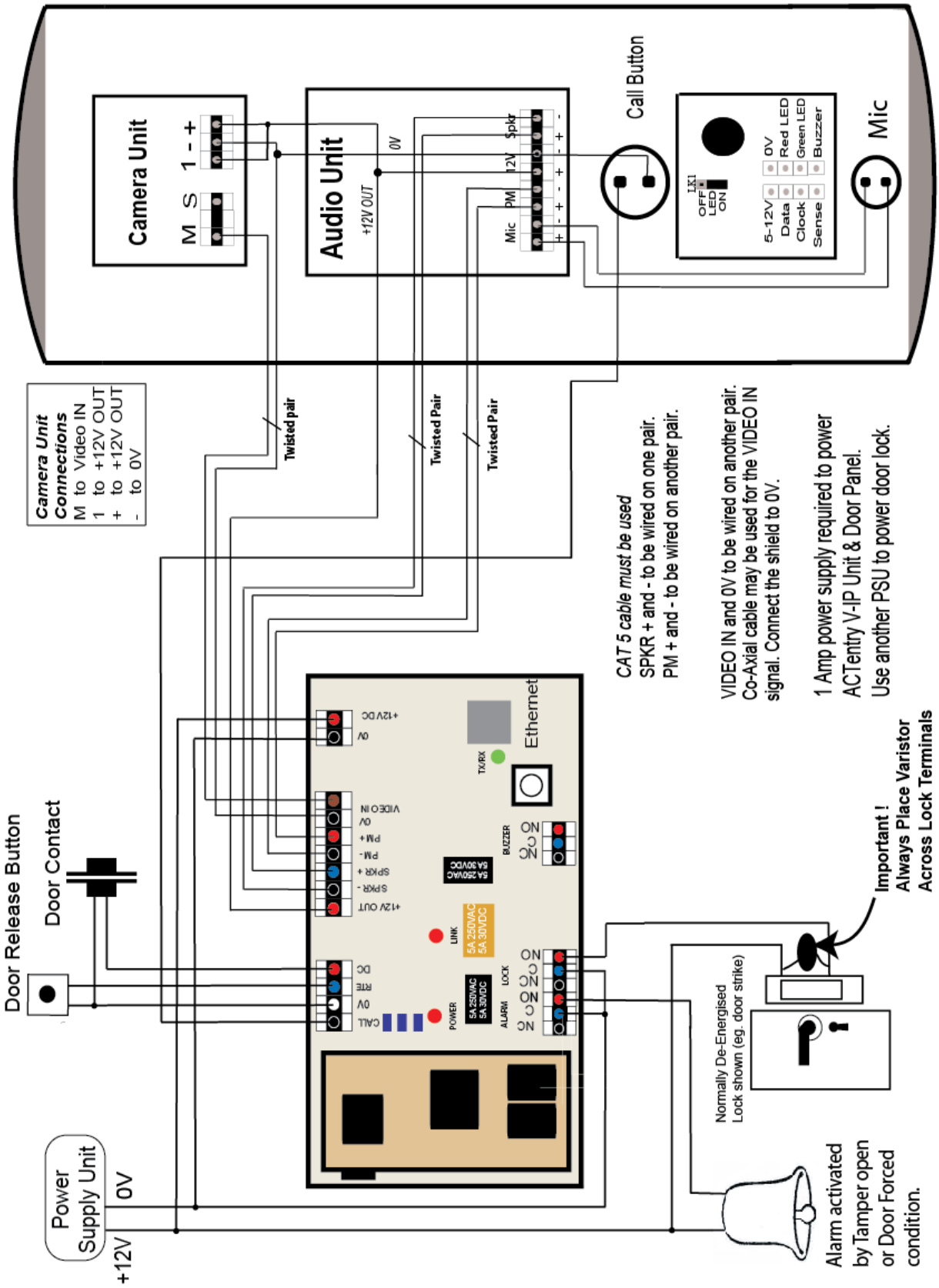
8. Sound Card

9. Speakers

10. USB port

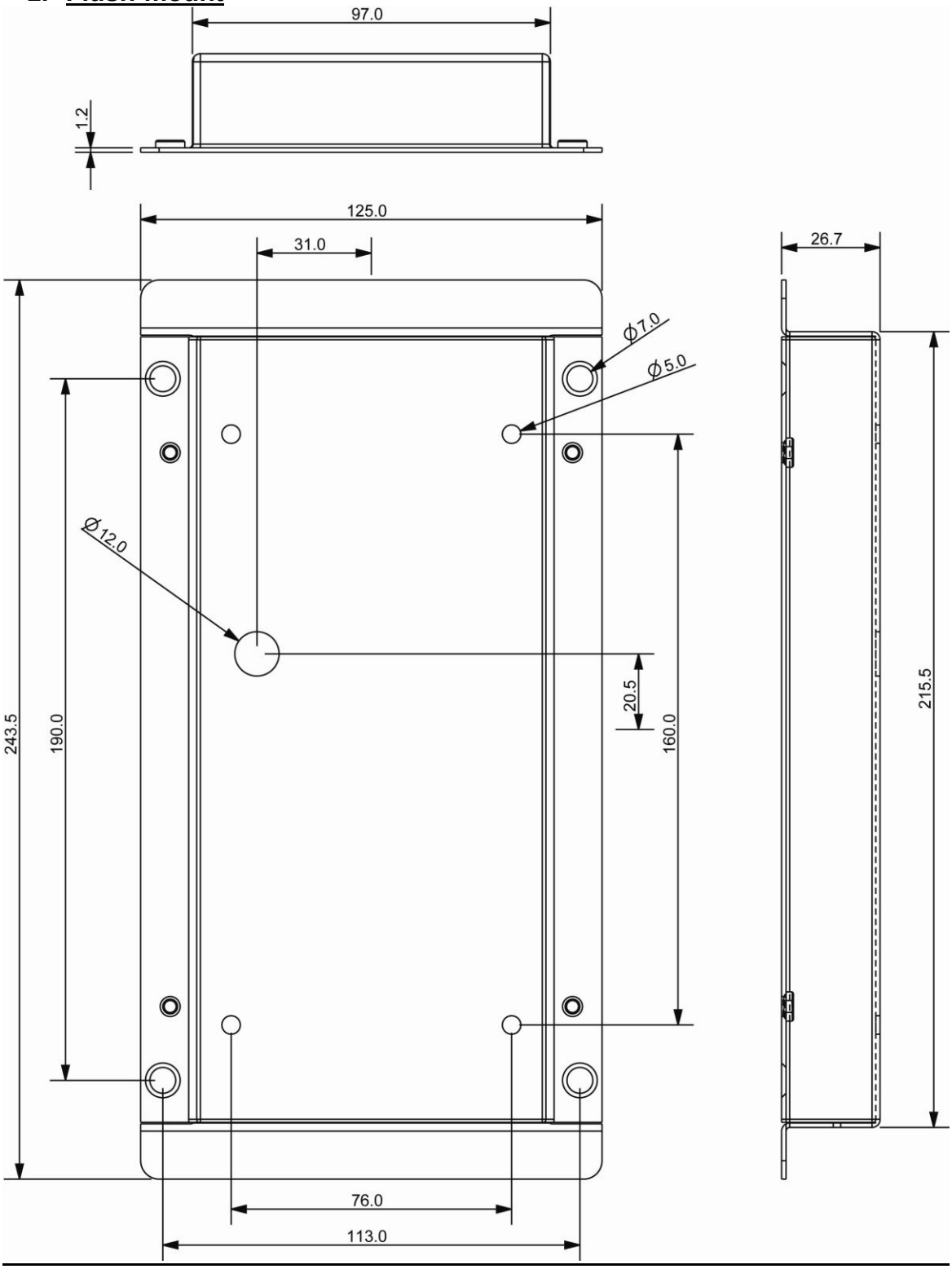
11. LAN connection (V-IP is not suitable for connection over WAN or through firewalls)

2.2 Installing ACTentry V-IP door panel



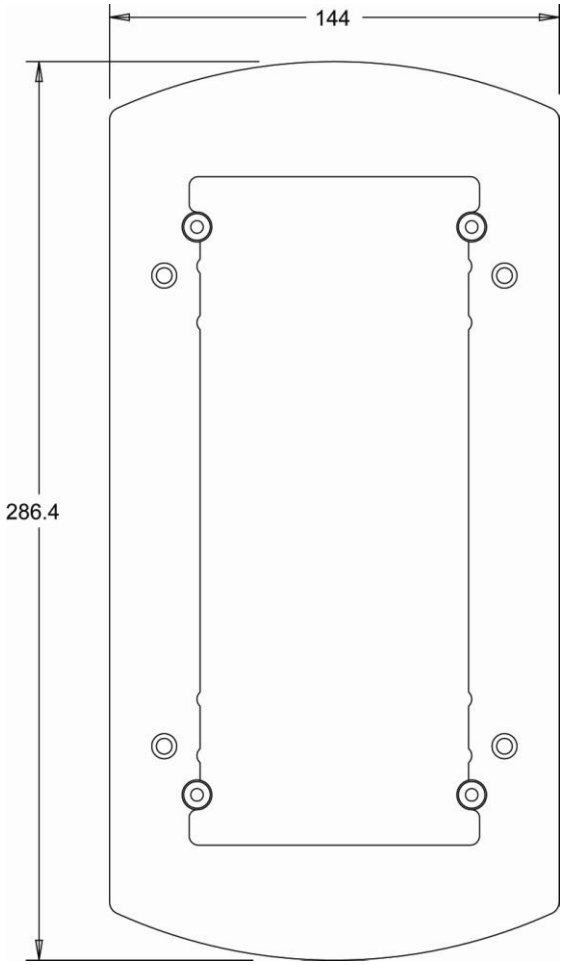
The ACTentry V-IP door panel is available in Flush-mount or Surface-Mount versions.

1. Flush-mount

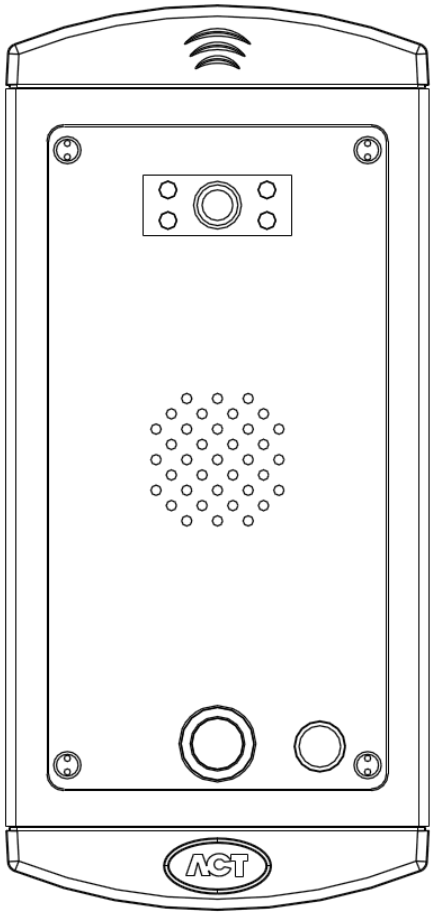


Flush mount Back Box

- The flush-mount version comprises of two parts:
    1. Flush mount back box
    2. Flush mount plate
- The flush mount back box (previous page) should be sunk into the mounting surface. Ensure to mount it at a height where the camera lens will match eye level.
- The flush-mount back box can be fixed to the wall via the screw holes provided by the side flaps or the back surface.
- Attach the flush mount plate (below) to the back box using the security screws provided.



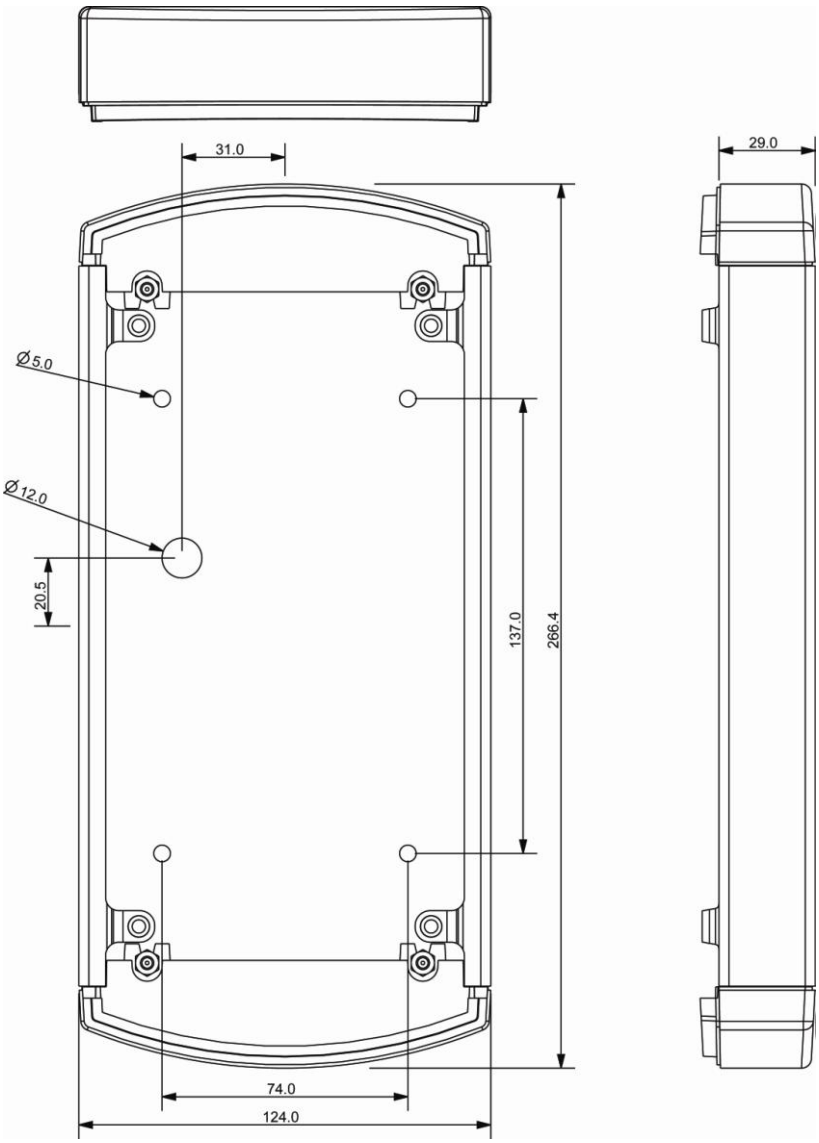
Flush Plate



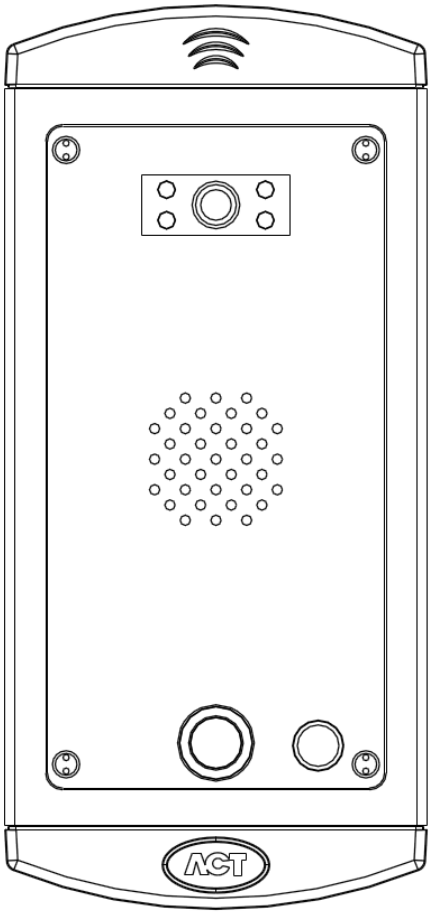
Front Panel

- Fix the door front panel to the flush mount assembly using 6 security screws provided.

2. Surface mount



Surface Mount Box



Front Panel

- The surface mount box (shown above) should be mounted on a flat surface, taking care to mount it at a height where the camera lens will match eye level.
- The door front panel is fixed to the surface mount assembly using the security screws provided.

2.3 Installing the ACTentry V-IP Unit

Please follow the guidelines below when installing the ACTentry V-IP unit:

1. The ACTentry V-IP controller unit should be mounted in a secure area close to a TCP/IP network connection point.
2. The recommended maximum distance between the ACTentry panel and the V-IP controller unit is 50m using CAT5 cable (or equivalent)
3. A 12Volt DC, 1 Amp power supply is provided to power the ACTentry V-IP Unit and the ACTentry V-IP door panel audio and video modules.
4. The ACTentry V-IP door panel and ACTentry V-IP controller unit are to be wired according to the wiring diagram at the back of this manual.

Door Inputs
There are two inputs on the ACTentry V-IP unit:

- Request to exit (RTE) button will release the door.
- Door Contact (DC) input monitors the door state (open or closed).

Alarm Relay
The ACTentry V-IP unit also comes with a built in alarm relay. The alarm relay switches while either the following conditions are in place:

1. Tamper open i.e. lid of ACTentry V-IP box open.
2. Door Contact input open i.e. door forced open.

The alarm relay can only be reset when both the Door Contact input and tamper are closed. Opening the door from the PC application may also be required to reset the alarm relay.

A Buzzer relay is also available. This energises when the call button is pressed, and can be connected to an internal sounder.

2.4 ACTentry V-IP connection to the network

- Connect the ACTentry V-IP to the Ethernet network with CAT5 cable.
- The ACTentry V-IP unit supports DHCP. It will automatically be assigned an IP address from the DHCP server when connected to the network. (A fixed IP address may also be assigned, see section 5.0).
- The ACTentry V-IP unit uses different ports and protocols (TCP/IP, UDP) to communicate with the PC. While this will work on most LAN configurations, operating the unit over WANs or through firewalls is not recommended.
- The LED’s on the PCB indicate the status of the connection to the network.

1. When the red LINK LED and the green TX/RX LED flash slowly (about once per second), the ACTentry V-IP controller unit is powered but not connected to the network.
2. When the red LINK LED is on, the ACTentry V-IP is successfully connected to the network.
3. The green TX/RX LED beside the LAN indicates data transmission between the network and the device.

2.5 ACT handset and PC speaker connection

1. The ACT USB handset should be connected to an available USB slot on the PC.
2. The PC speakers should be connected to the PC sound card and switched on.

2.6 ACTpro-X 1030 Panel-Mount reader installation

ACTentry V-IP may be used in conjunction with an ACTpro access control system. Cardholders present their proximity cards to the panel mount reader to gain access. Visitors use the call button on the door panel.

Please see the ACTpro-X 1030 panel mount installation diagram at end of this manual.

The ACTSmart1070 Panel Mount Reader may also be used with the ACTentry V-IP. This is suitable for smaller systems with fewer cardholders and doors (less than 16).

2.7 ACTentry V-IP software installation

The V-IP unit needs to be powered up and connected to the network before proceeding with the installation.

ACTentry V-IP software is designed to operate on a PC connected to a TCP/IP Local Area Network.

The ACTentry V-IP software should be installed on any PC where the user is expected to answer calls from the door and allow access to the building.

To install ACTentry V-IP software, insert the CD into your computer's CD drive. If *Autoplay* is enabled, the setup application will load automatically. To load setup manually, select the CD drive from *Windows Explorer* and double click the SETUP.EXE file.

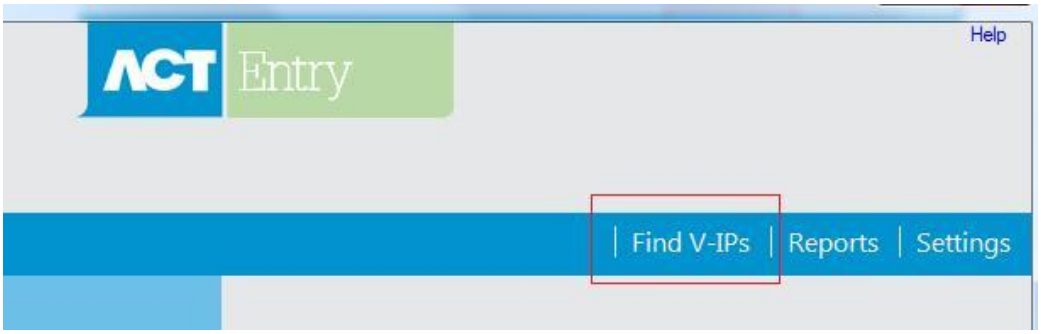
2.8 ACTentry V-IP software configuration

On using the ACTentry V-IP software for the first time, add the ACTentry V-IP units to the software.

a. Click on the ACTentry icon in the system tray or on the desktop.

b. Select "**Settings**" on the top right of the screen
   Network Tab
   i. Check the correct Network adapter is selected
   ii. Check the bandwidth is appropriately set for the network and computer. For very busy networks, the bandwidth may need to be reduced.
   Language Tab
   i. Select the language from the dropdown list of languages.

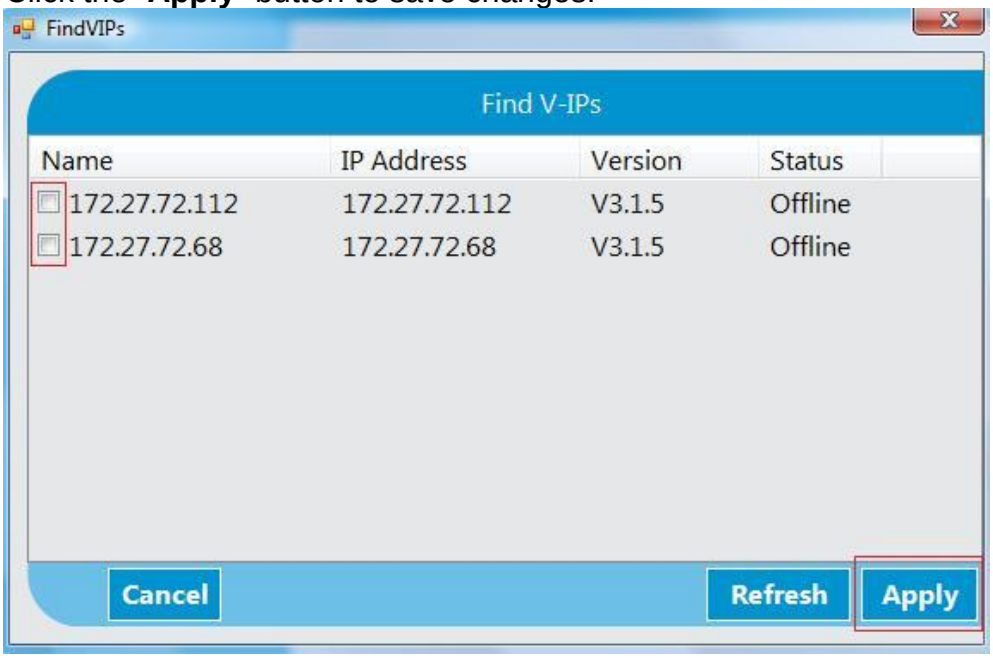
c. Click the Apply button to save the changes.
d. Click "**Find V-IPs**" button.



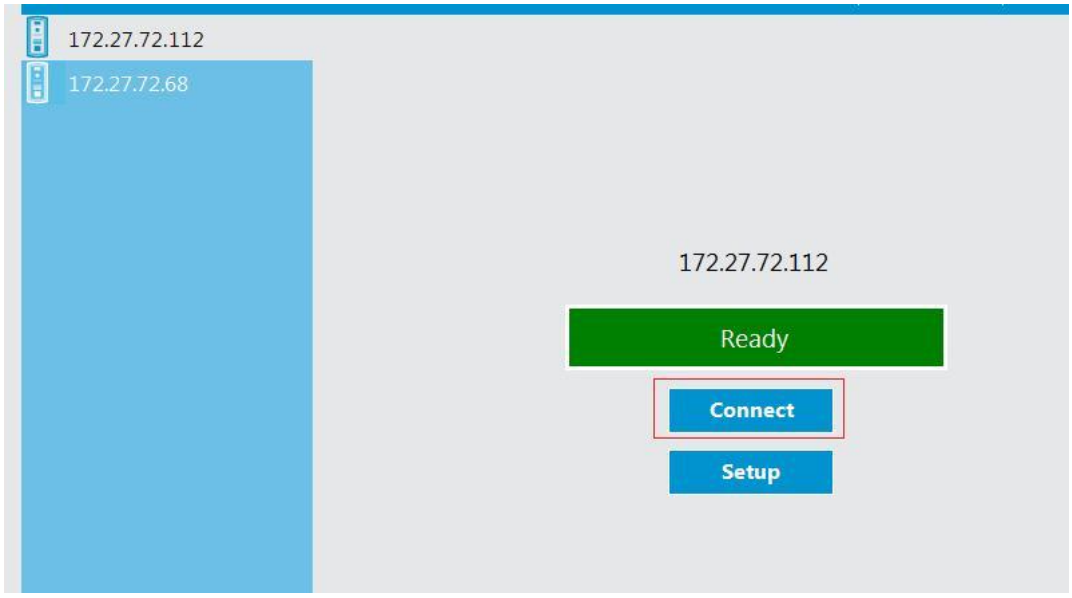
A list of available ACTentry V-IP units on the network (LAN) will be displayed.

e. "**Tick**" the units to be monitored by the ACTentry V-IP software.

f. Click the "**Apply**" button to save changes.



An icon representing the V-IP unit will appear on the left column.

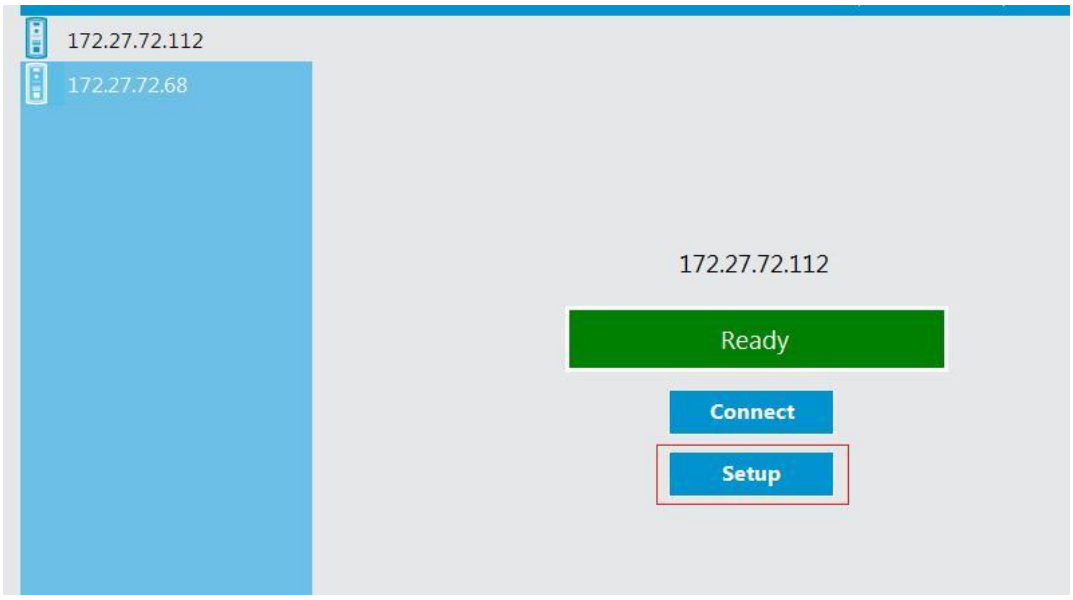


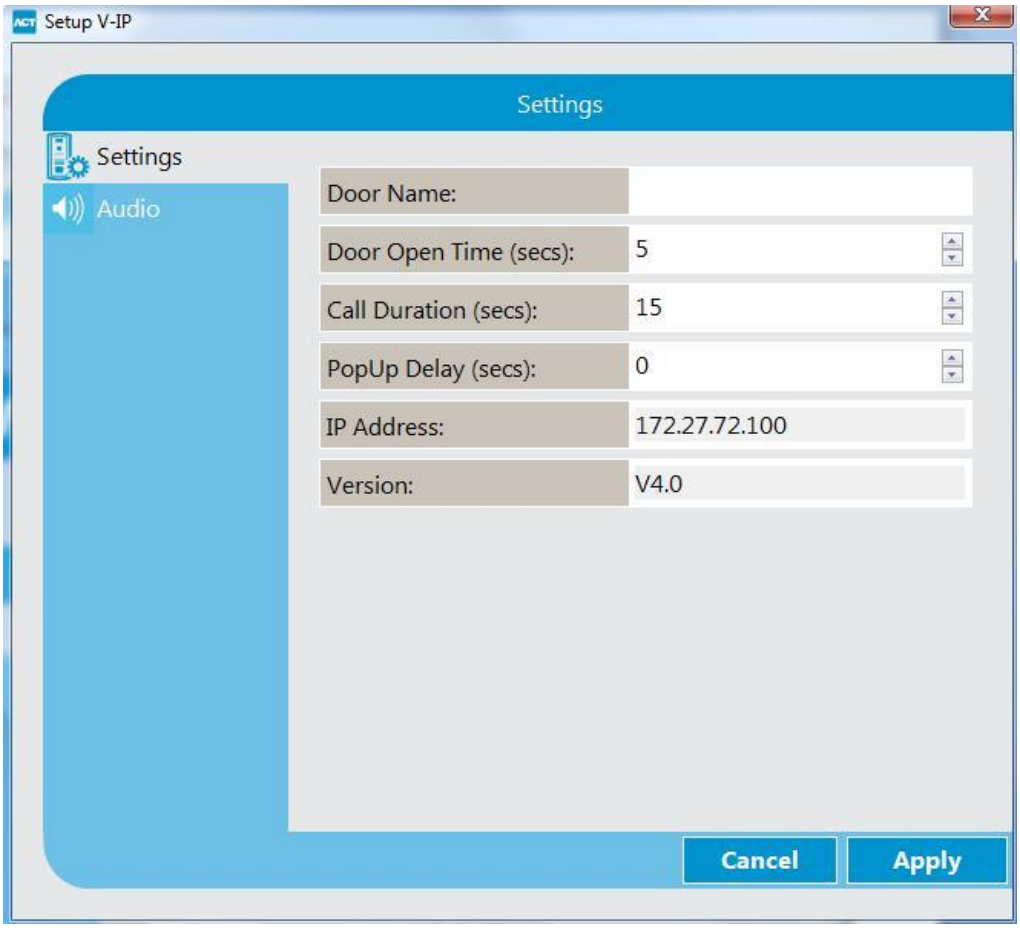
g. **Click** the icon for each ACTentry V-IP unit and press the "**Connect**" button to get live audio and video from the unit.

h. **Click** the "**Allow**" button to open the door and disconnect or **Click** the "**Deny**" button to disconnect.

2.9 Configure Settings

a. Click **Setup** button to configure the settings for the selected V-IP unit.





Door Name: This is the name that will appear on the application and in reports. By default it is the IP address of the V-IP. A more user friendly name (e.g. Front Door) may be entered here.

Door Open Time: This option specifies the length of time the Door Lock remains open before it closes and locks the door again. This should be set to a value that allows for all expected scenarios. By default it is set to 5 seconds.

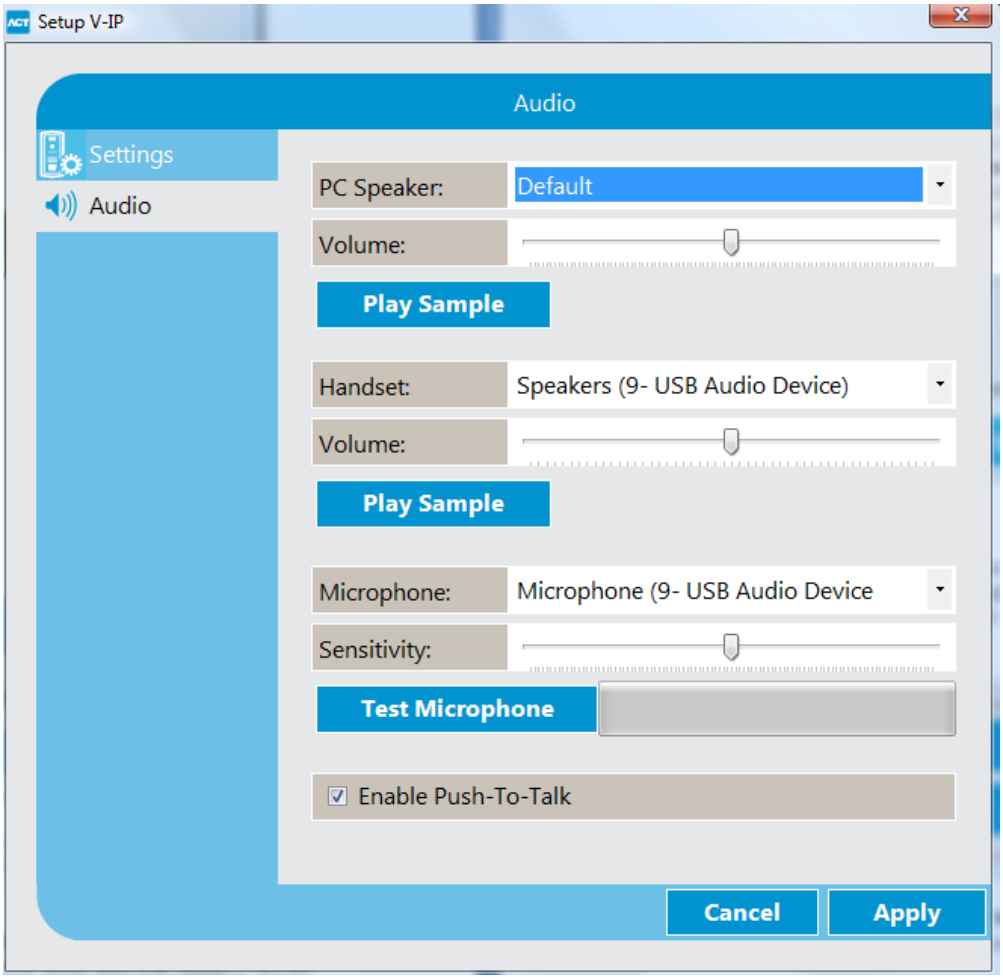
Call Duration: This timer specifies the length of time a PC user who has answered a call can view the live video and may grant or deny access.

Pop-Up Delay: This timer specifies the time between the visitor pressing the call button and the notification appearing on the PC screen. Normally this is set to 0, so that the PC user is notified immediately. Another PC user could have this set to, say, 20 seconds. If the main PC user has not answered the call within 20 seconds, it will pop-up on the other PC.

IP Address: This is the IP address of the V-IP unit and is read-only.

Version: This is the firmware version of the V-IP unit and is read-only.

b. Click on Audio Tab to configure the Audio settings in the PC.



To help configure the audio properties, a second person is required at the door V-IP panel. Check that the person at the door can be heard from the PC speakers or the PC handset.

PC Speaker: When the call button is pressed, the call sound should be heard over the PC speakers. Set the volume level with the slider. Further adjustments may be made using the speakers own volume controls

Handset: Set the Handset to the USB device. Adjust the volume settings of the handset to hear the person at the door.

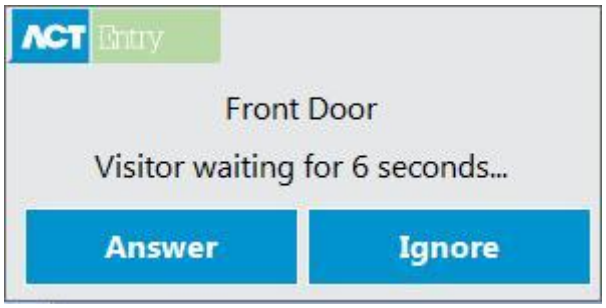
Microphone: Set the Microphone to the USB device. If the person at the door panel cannot hear the PC user, adjust the Microphone sensitivity.

Enable Push-To-Talk: ACT recommends ticking this option to give optimal audio performance and eliminate feedback and distortion.

c. Click **Apply** to save changes. The V-IP is now ready for use.

3.0 OPERATION

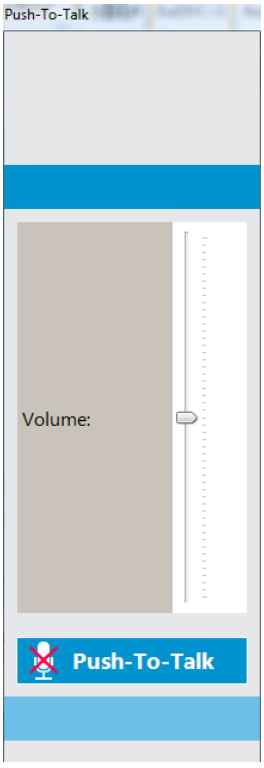
When the call button at the ACTentry V-IP entry panel is pressed, the ACTentry software will immediately pop-up a notification at the bottom right of the monitor. When the "**Pop-Up Delay**" is longer than 0 seconds the ACTentry V-IP software will wait for the delay time before popping up the notification unless the call is answered by another operator.



Click Answer button and the video from the door will pop up on-screen. The ACT handset should be lifted and used to converse with the person at the door and access may or may not be granted accordingly with the Allow or Deny buttons.

If Push-To-Talk is selected, hold down the Push-To-Talk button while speaking.

If the Pop-Up is not answered, it will time-out after 60 seconds. Alternatively, clicking Ignore will remove the pop-up from the screen.

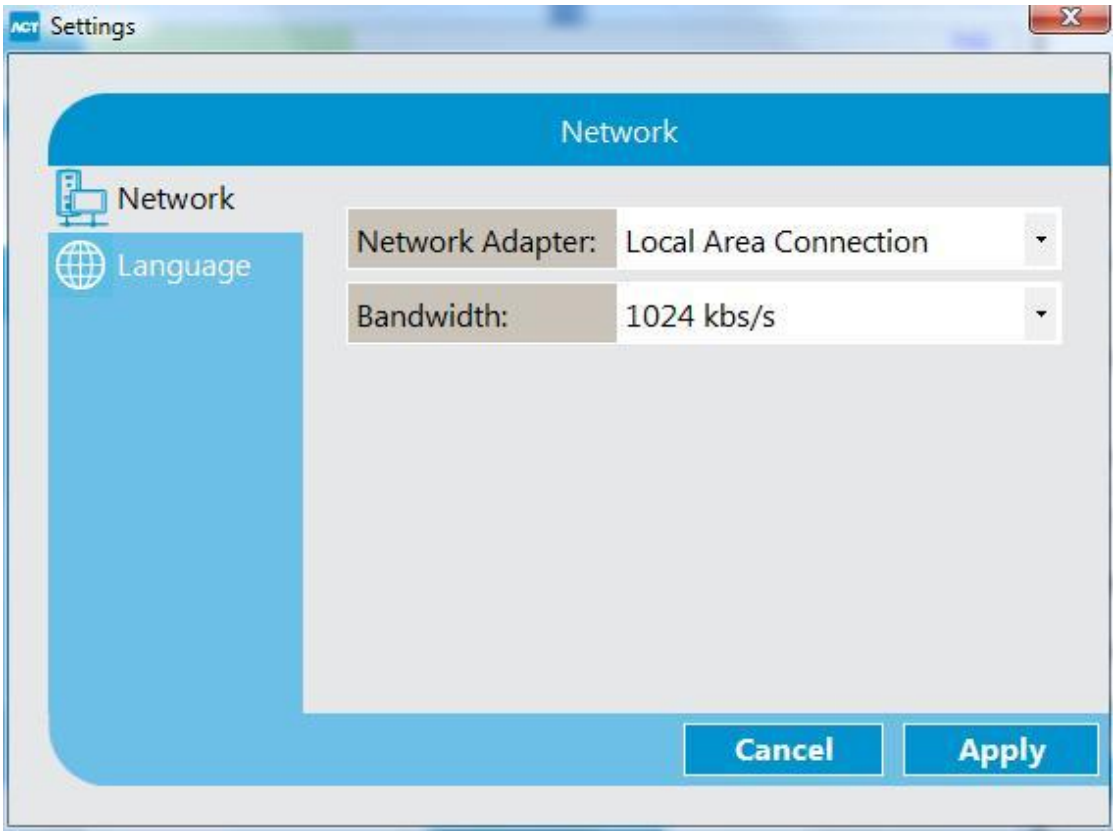


4.0 TROUBLESHOOTING

4.1 No V-IPs found on the network

Check that all V-IP units are powered up and connected to the Local Area Network. On the V-IP unit, check the red LINK LED is on.

Check the network settings under Settings on the top right.



Choose the correct Network Adapter on the machine.

4.2 Audio Feedback is heard by PC user when connected to live video

Lift the ACT Handset and listen. Go to the Audio Settings and decrease the microphone sensitivity and speaker volumes.

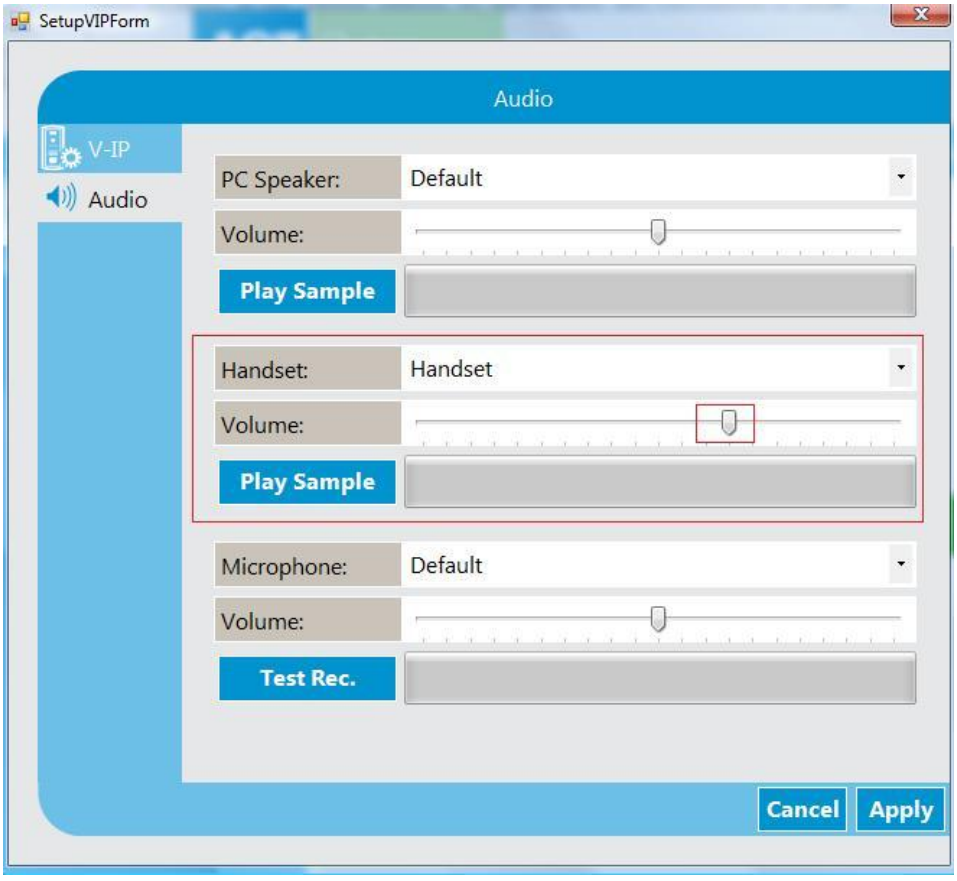
The feedback should now be gone.

Increase the volume settings for the speaker and microphone in small adjustments until satisfactory volume levels are received in both, making sure no feedback occurs.

Tick the Push-To-Talk option under Audio tab.

4.3 Difficult to hear the person at the door

Increase the Handset volume setting from the application.



4.4 The person at the door cannot hear PC User

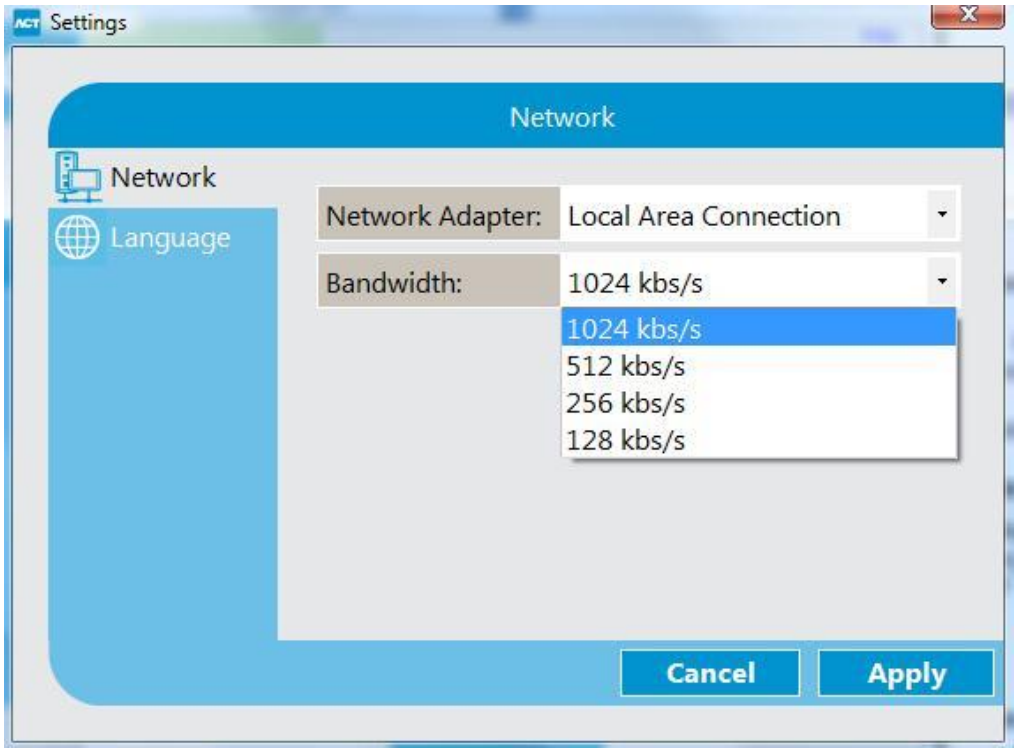
Increase the Microphone sensitivity in Audio Settings.

Also check the following:

1. Ensure that the Speaker Grill is fitted securely against the Door Entry Panel Grill.
2. Check the Door Entry Panel Grill for any blockages.
3. Check that the supply voltage is not at an inadequate level. For best operation it should be between 10V and 15V between terminals marked + and -12V on the speech unit.
4. Check the handset connections to the PC are correct.

4.5 Video picture is poor quality or grainy

The bandwidth can be increased. Go to Settings in the ACTentry V-IP application and select bandwidth of 1024Kb/s.



Also check the video signal and 0V are on the same twisted pair.

4.6 Call Button not making call when pressed

- Check the V-IP plays a sound when call button pressed. If not check the call button wiring. One call button wire should connect to the CALL input on the ACTentry V-IP unit. The other connection on the call button is connected to 0V.

4.7 The "Allow Access" option does not open the door

- Check the wiring between the Lock Relay terminals on the ACTentry V-IP unit and the lock
- Use a multi-meter to check that the Lock Relay on the ACTentry V-IP is switching over.

4.8 Alarm is constantly on

- Check the Tamper spring on the ACTentry V-IP unit is fitted and not impeded by wiring.
- Ensure the Door Contact (DC) input on the ACTentry V-IP unit is linked to 0V.
- Power down and power up the ACTentry V-IP unit again.

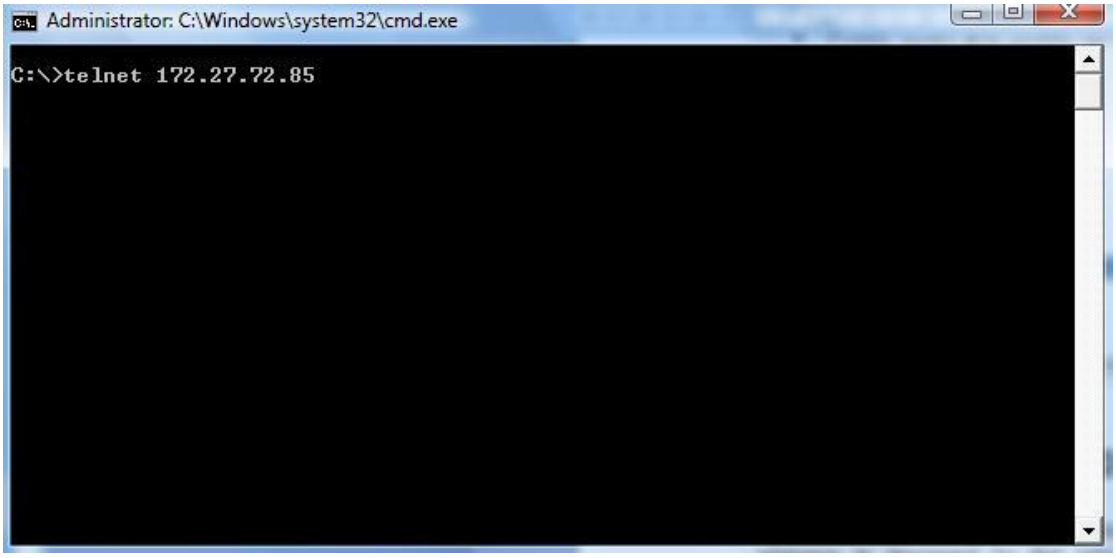
5.0 SETTING A FIXED IP ADDRESS

By default the V-IP unit is supplied with support for DHCP server only. The IP address is assigned by the server when the device powers up. In some circumstances it might be necessary to fix the IP address of the V-IP unit.

The application 'Telnet' is used to configure a fixed IP address. (Note: Telnet is not available on Vista machines).

If the V-IP unit already has a known IP address, then to change it to a fixed address, do the following:

1. Type cmd, to run the DOS command window.
2. telnet *IP ADDRESS of V-IP Unit* e.g. telnet 172.27.72.85



3. When prompted for the password, enter *ACT*
4. Type ? to get a list of commands
5. To set the ip address enter:

   setip *ip address gateway subnetmask*

   Eg. setip *172.27.72.63 172.27.72.254 255.255.255.0*

6. IP address is now set to **172.27.72.63**
7. Type *quit* to exit.

If the V-IP unit does not have a known IP address, then it can be set to a default value by doing the following:

1. Power up the unit
2. Remove Link J9 (near the CALL connection on the board)
3. LED DS1 (first LED on daughter card) flashes
4. Hold down the tamper switch for 3 seconds
5. LED DS1 stays on
6. Replace Link J9
7. LED DS3 (third LED) flashes
8. Power down the unit.
9. Power up the unit.
10. IP address now set to **192.168.1.66**
11. To change the IP address follow the procedure above.

If you want to set the V-IP unit back to DHCP mode, then:

1. Type cmd
2. telnet *IP ADDRESS*
3. Password: *ACT*
4. Enter *setip 0*
5. V-IP is now set for DHCP mode
6. Type *quit*

Alternatively:

1. Power up the unit
2. Remove Link J9 (near the CALL connection on the board)
3. Power down the unit
4. Replace Link J9
5. Power up the unit

6.0 ACTentry V-IP panel Mount Installation Diagram

Mounting Instructions

1. Use the wiring diagram below to connect the reader to the controller.

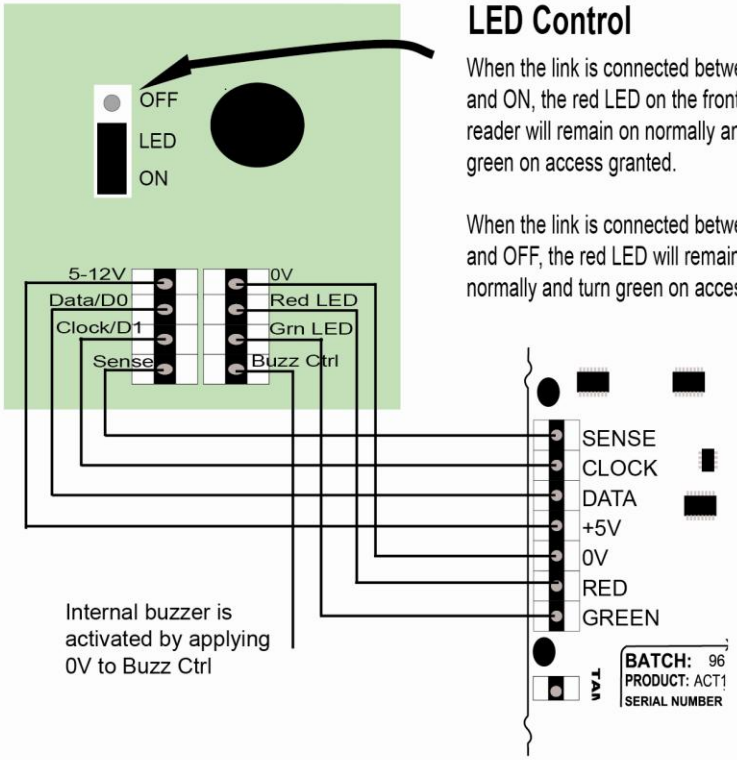
2. When wiring is complete, place the front cover back on to the ACTentry V-IP front panel.

3. Apply power to the controller and test the reader with card.

Wiring for ACTpro-X PM Reader

White	Sense
Green	Clock / Data1
Blue	Data / Data 0
Red	+5V or +12V
Black	0V
Brown	Red Led
Yellow	Grn Led
Orange	(Buzzer Ctrl)

Rear view of ACTentry V-IP Panel Mount Reader



LED Control

When the link is connected between LED and ON, the red LED on the front of the reader will remain on normally and turn green on access granted.

When the link is connected between LED and OFF, the red LED will remain off normally and turn green on access granted.

The standard wiring colours for ACTentry V-IP Panel Mount Proximity reader is shown above.
Readers should be a maximum of 30m from the controller when powered from +5V and a maximum of 100m when powered from +12V.

The +5V reader supply on ACT controllers rated for 100mA. Typically this is sufficient to power 2 ACT readers.

Note, however, that readers from other manufacturers may need to be powered separately if their current requirements exceed this or if they require +12V.

For systems with Wiegand cards:
Connect the SENSE line on the readers to 0V.
For an Exit Reader connect as above except connect Data 0 line of the exit reader to SENSE on the controller.

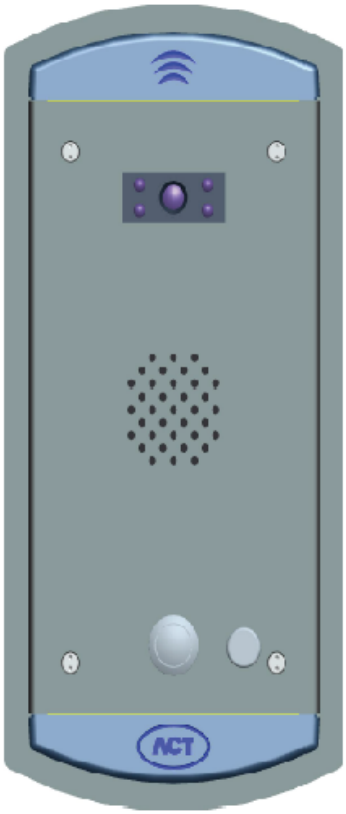
The ACTentry V-IP reader is compatible with ACTProx cards (used on the ACTSmart2 products) and ACT legacy cards and fobs.

7.0 Installation Notice for Flush mount units.

Installation Notice: ACTentry V-IP and V-IPX (flush mount)

After the installation of a flush mounted V-IP and V-IPX unit is complete, it is important to seal the gap between the mounting plate and the wall surface using an appropriate watertight sealing compound.

This prevents possible water ingress to both the ACTentry V-IP and V-IPX unit between the flush plate and the mounting surface.



ACTentry V-IP (flush mount)

Mounting Plate

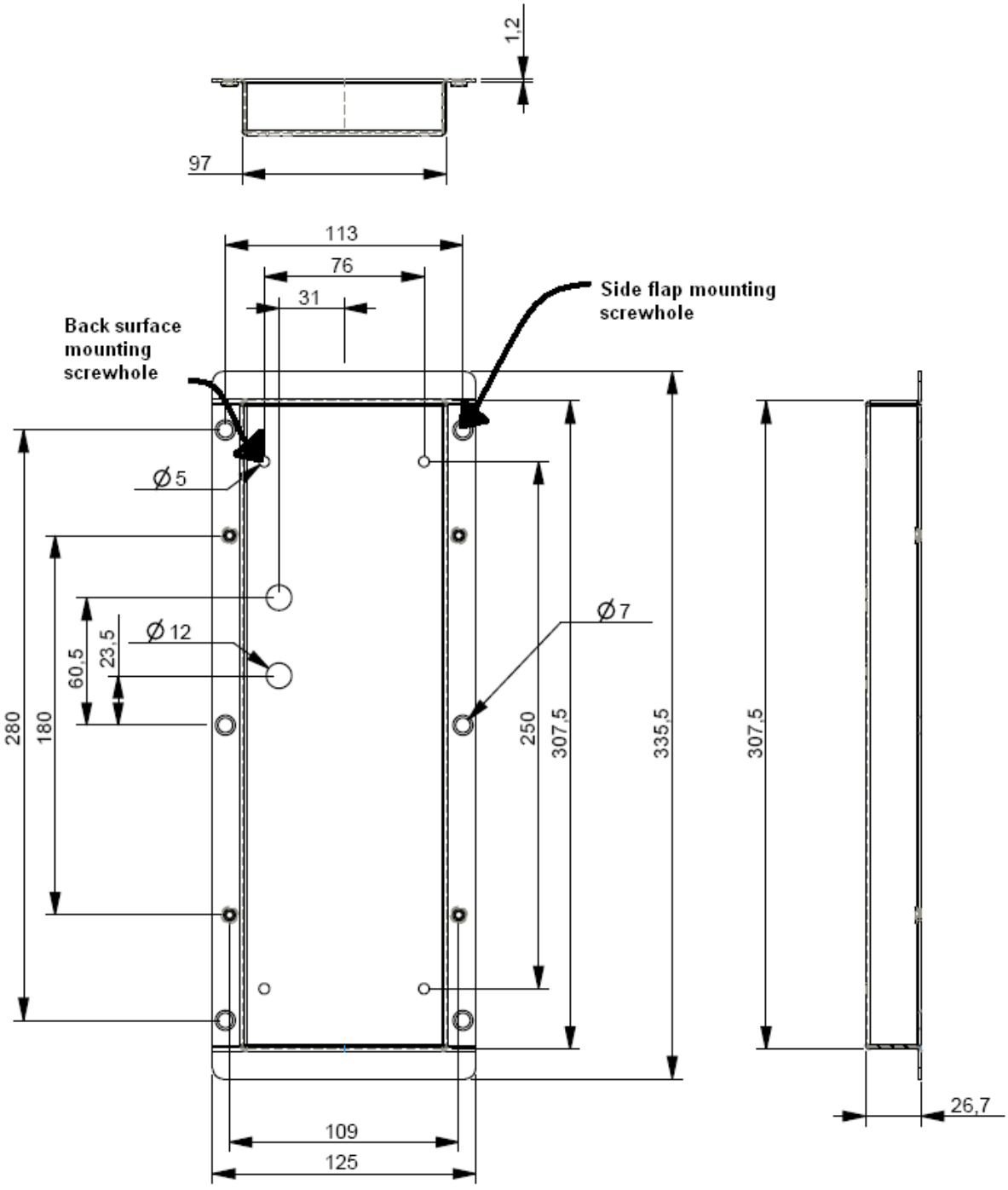
Seal the gap between the mounting plate and the wall

ACTentry V-IPX (flush mount)

8.0 Mounting instructions for Extended Version of ACTentry V-IP.

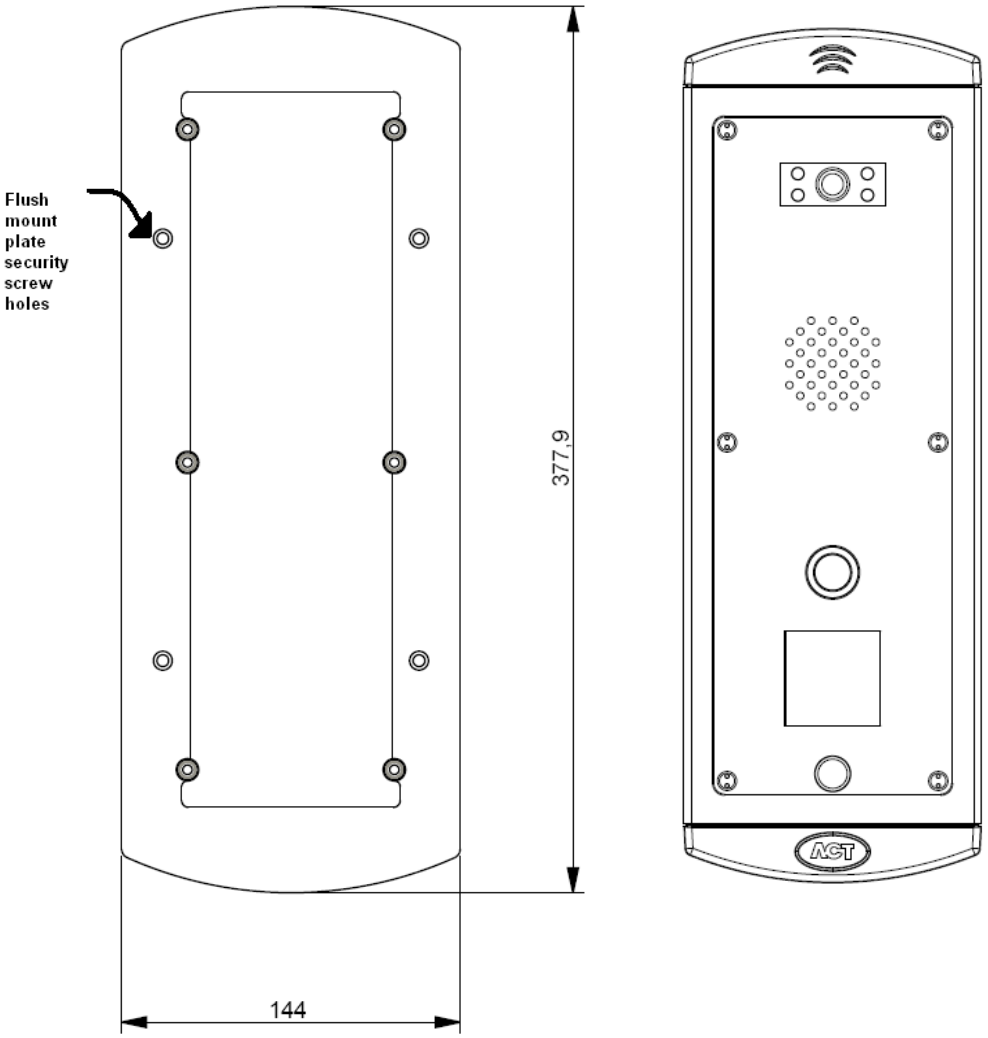
The ACTentry V-IP door panel is available in Flush-mount or Surface-Mount versions with a cut out for panel mount readers.

8.1 ACTentry V-IP FPX - Flush-mount panel with cut out for panel mount reader



Back Box

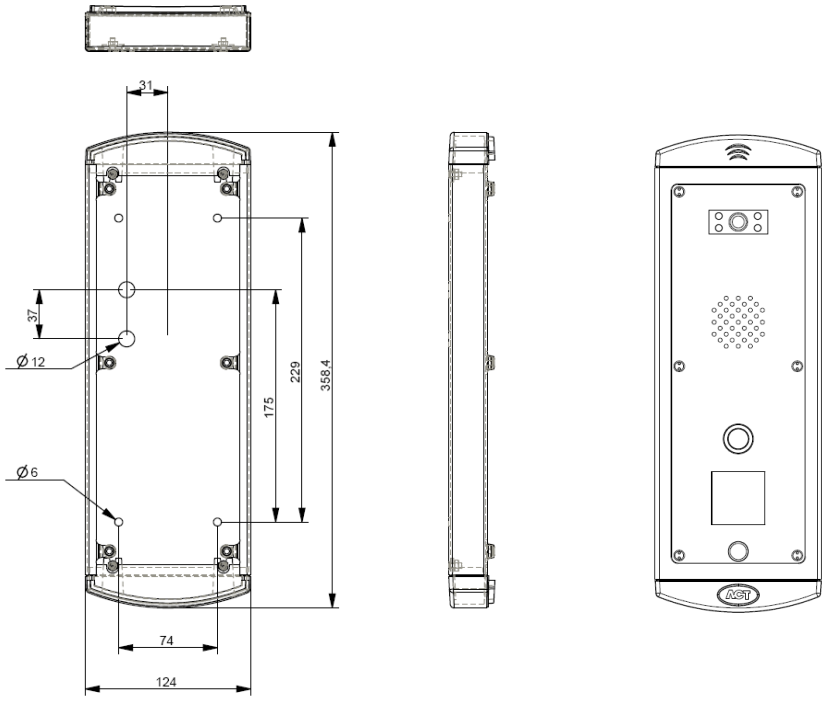
- The flush-mount version comprises of two parts:
    1. Flush mount back box
    2. Flush mount plate
- The flush mount back box (shown above) should be sunk into the mounting surface. Ensure to mount it at a height where the camera lens will match eye level.
- The flush-mount back box can be fixed to the wall via the screw holes provided by the side flaps or the back surface.
- Attach the flush mount plate (below) to the back box using the security screws provided.



Flush Plate **Front Panel**

- Finally, fix the door front panel to the flush mount assembly using 6 security screws provided.

8.2 ACTentry V-IP SPX – Surface mount panel with cut out for panel mount reader



Surface Mount Box **Front Panel**

- The surface mount box (shown above) should be mounted on a flat surface, taking care to mount it at a height where the camera lens will match eye level.
- The door front panel is fixed to the surface mount assembly using the security screws provided.

Ordering Information:

ACT Product Code	Product description
ACTentry V-IP SK	Surface Mount Kit*
ACTentry V-IP FK	Flush Mount Kit*
ACTentry V-IP SP	VoIP Door Entry Panel (surface)
ACTentry V-IP FP	VoIP Door Entry Panel (flush)
ACTentry V-IP SKX	Surface Mount Kit**
ACTentry V-IP FKX	Flush Mount Kit**
ACTentry V-IP SPX	VoIP Door Entry Panel (surface) with cut out for panel mount proximity reader
ACTentry V-IP FPX	VoIP Door Entry Panel (flush) with cut out for panel mount proximity reader
ACTentry V-IP CTR	V-IP control unit
ACTentry V-IP PCH	Plug in PC Handset. Internal use only.
ACTentry V-IP PSU	1Amp Power Supply Unit.

**Vandal resistant VoIP Door Entry Panel, PC handset, Control Unit & Power Supply*
***Extended Version: Vandal resistant VoIP Door Entry Panel with cut-out for panel-mount proximity reader, PC handset, Control Unit & Power Supply.*

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